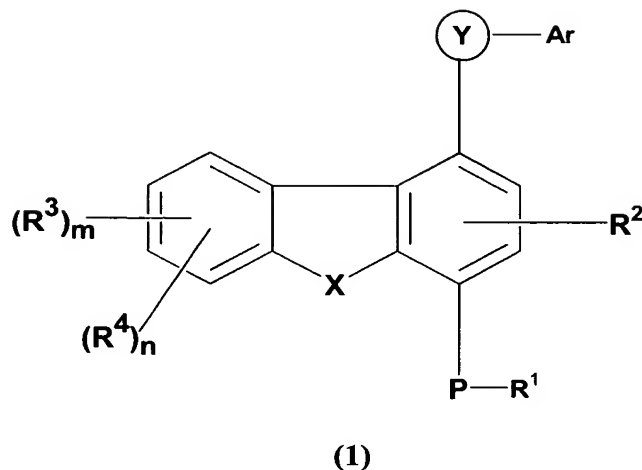


## Claims:

1. A compound of general Formula (I)



wherein:

$R^1$ ,  $R^2$  and  $R^3$  may be same or different and are independently selected for each occurrence from the groups consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic group, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$  or when two  $R^3$  substituents ortho to each other, may be joined to form a saturated or unsaturated 3-7 membered ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

wherein  $R^4$  is  $-NR^5R^6$ ; wherein  $R^5$  and  $R^6$  may be same or different and are independently selected from the groups consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted

heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, halogen,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-C(=NR^a)-R^a$ ,  $-C(=NR^a)-NR^aR^a$ ,  $-C(=S)-NR^aR^a$ ,  $-C(=S)-R^a$ ,  $-N=C(R^aR^a)$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$ , protecting groups or  $R^5$  and  $R^6$  to each other may be joined to form a saturated or unsaturated 3-7 membered cyclic ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

Ar is selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heterocyclic ring and substituted and unsubstituted heteroaryl ring;

X is selected from the group consisting of O,  $S(O)_q$  and  $NR^a$ ;

Y is selected from the group consisting of  $-C(O)NR^7$ ,  $-NR^7S(O)_q$ ,  $-S(O)_qNR^7$  and  $-NR^7C(O)$ ;

$R^7$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, hydroxyl,  $-OR^a$ , substituted or unsubstituted aryl, and substituted or unsubstituted heterocyclic ring;

wherein P is chosen from the group consisting of O and S;

wherein m represents 0 – 3;

wherein n represents 1 – 4;

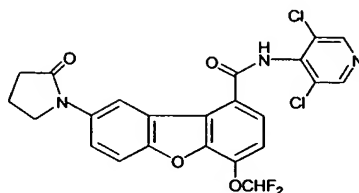
wherein q represents 0, 1 or 2;

with the proviso that  $R^4$  is not  $NH_2$

wherein  $R^a$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$  or  $-SR^a$ ;

and their analogs, tautomers, regioisomers, stereoisomers, enantiomers, diastereomers, polymorphs, pharmaceutically acceptable salts, N-oxides, pharmaceutically acceptable

solvates and their pharmaceutical compositions containing them or with the proviso that structure below is not included.

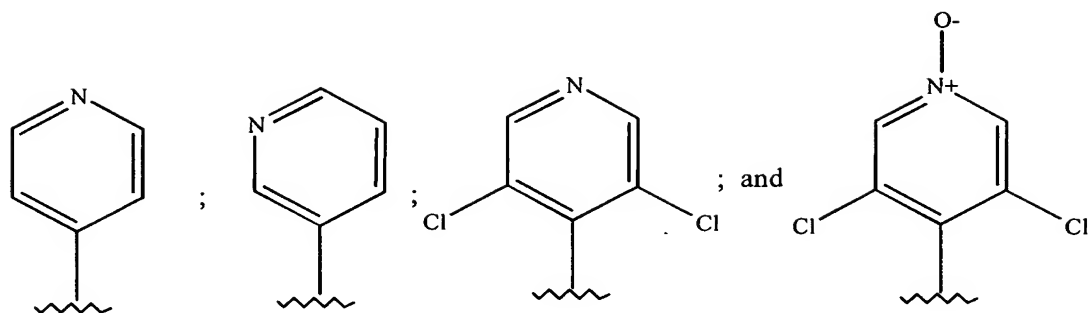


2. The compound according to claim 1, wherein Ar is optionally substituted phenyl, optionally substituted benzyl, optionally substituted pyrimidine, optionally substituted pyridyl selected from 4-pyridyl, 3-pyridyl and 2-pyridyl or optionally substituted pyridyl-N-oxide selected from 4-pyridyl-N-oxide, 3-pyridyl-N-oxide and 2-pyridyl-N-oxide in which optional substituents (one or more) may be same or different and are independently selected from the groups consisting of hydrogen, hydroxyl, halogen, cyano, nitro, carboxyl, trifluoroalkyl, substituted or unsubstituted alkyl, substituted or unsubstituted alkoxy, substituted or unsubstituted alkoxycarbonyl, substituted or unsubstituted alkylcarbonyl, substituted or unsubstituted alkylcarbonyloxy, substituted or unsubstituted amino or mono or di substituted or unsubstituted alkylamino

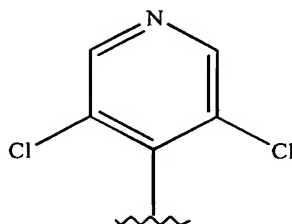
3. A compound according to claim 1, wherein the substituents in the 'substituted alkyl', 'substituted alkoxy' 'substituted alkenyl' 'substituted alkynyl' 'substituted cycloalkyl' 'substituted cycloalkylalkyl' 'substituted cycloalkenyl' 'substituted arylalkyl' 'substituted aryl' 'substituted heterocyclic ring', 'substituted heteroaryl ring,' 'substituted heteroarylalkyl', 'substituted heterocyclalkyl ring', 'substituted amino', 'substituted alkoxycarbonyl', 'substituted cyclic ring' 'substituted alkylcarbonyl', and 'substituted alkylcarbonyloxy' may be the same or different and in which one or more are selected from the group consisting of hydroxy, halogen, carboxyl, cyano, nitro, oxo (=O), thio(=S), substituted or unsubstituted alkyl, substituted or unsubstituted alkoxy, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted amino, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, 'substituted heterocyclalkyl ring' substituted or unsubstituted heteroarylalkyl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted guanidine,  $-\text{COOR}^x$ ,  $-\text{C(O)R}^x$ ,  $-\text{C(S)R}^x$ ,  $-\text{C(O)NR}^x\text{R}^y$ ,  $-\text{C(O)ONR}^x\text{R}^y$ , -

$\text{NR}^x\text{CONR}^y\text{R}^z$ ,  $-\text{N}(\text{R}^x)\text{SOR}^y$ ,  $-\text{N}(\text{R}^x)\text{SO}_2\text{R}^y$ ,  $-(=\text{N}-\text{N}(\text{R}^x)\text{R}^y)$ ,  $-\text{NR}^x\text{C}(\text{O})\text{OR}^y$ ,  $-\text{NR}^x\text{R}^y$ ,  $-\text{NR}^x\text{C}(\text{O})\text{R}^y$ ,  $-\text{NR}^x\text{C}(\text{S})\text{R}^y$ ,  $-\text{NR}^x\text{C}(\text{S})\text{NR}^y\text{R}^z$ ,  $-\text{SONR}^x\text{R}^y$ ,  $-\text{SO}_2\text{NR}^x\text{R}^y$ ,  $-\text{OR}^x$ ,  $-\text{OR}^x\text{C}(\text{O})\text{NR}^y\text{R}^z$ ,  $-\text{OR}^x\text{C}(\text{O})\text{OR}^y$ ,  $-\text{OC}(\text{O})\text{R}^x$ ,  $-\text{OC}(\text{O})\text{NR}^x\text{R}^y$ ,  $-\text{R}^x\text{NR}^y\text{C}(\text{O})\text{R}^z$ ,  $-\text{R}^x\text{OR}^y$ ,  $-\text{R}^x\text{C}(\text{O})\text{OR}^y$ ,  $-\text{R}^x\text{C}(\text{O})\text{NR}^y\text{R}^z$ ,  $-\text{R}^x\text{C}(\text{O})\text{R}^x$ ,  $-\text{R}^x\text{OC}(\text{O})\text{R}^y$ ,  $-\text{SR}^x$ ,  $-\text{SOR}^x$ ,  $-\text{SO}_2\text{R}^x$ ,  $-\text{ONO}_2$ , wherein  $\text{R}^x$ ,  $\text{R}^y$  and  $\text{R}^z$  in each of the above groups can be hydrogen atom, substituted or unsubstituted alkyl, substituted or unsubstituted alkoxy, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted amino, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, 'substituted heterocyclalkyl ring' substituted or unsubstituted heteroarylalkyl, substituted or unsubstituted heterocyclic ring.

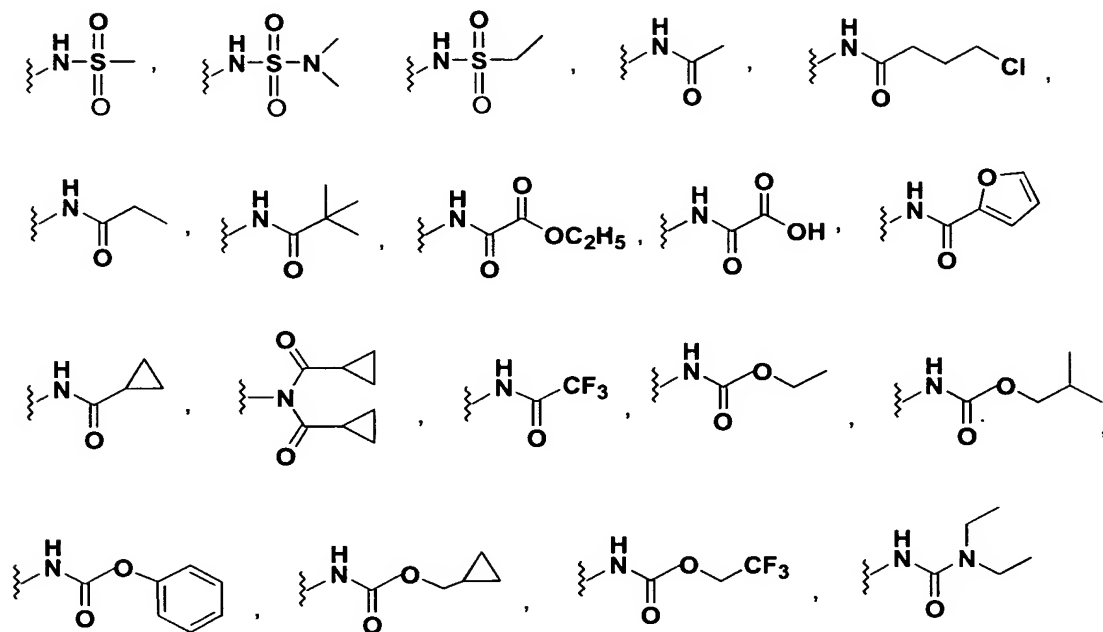
4. The compound according to claim 1, wherein  $\text{R}^1$  is unsubstituted alkyl
5. The compound according to claim 4, wherein  $\text{R}^1$  is methyl.
6. The compound according to claim 1, wherein  $\text{R}^1$  is substituted alkyl.
7. The compound according to claim 6, wherein  $\text{R}^1$  is  $-\text{CHF}_2$ .
8. The compound according to claim 1, wherein P is O.
9. The compound according to claim 1, wherein X is chosen from the group consisting of O, S and  $\text{N}-\text{CH}_3$ .
10. The compound according to claim 9, wherein  $\text{X} = \text{O}$ .
11. The compound according to claim 1, wherein Y is  $-\text{C}(\text{O})\text{NH}$
12. The compound according to claim 1, wherein Ar is selected from the group consisting of substituted or unsubstituted 4-pyridyl; substituted or unsubstituted 4-pyridyl-N-oxide; substituted or unsubstituted 3-pyridyl.
13. The compound according to claim 12, wherein said substituent is a halogen.
14. The compound according to claim 13, wherein said halogen is chloro.
15. The compound according to claim 12, wherein Ar is selected from the group consisting of

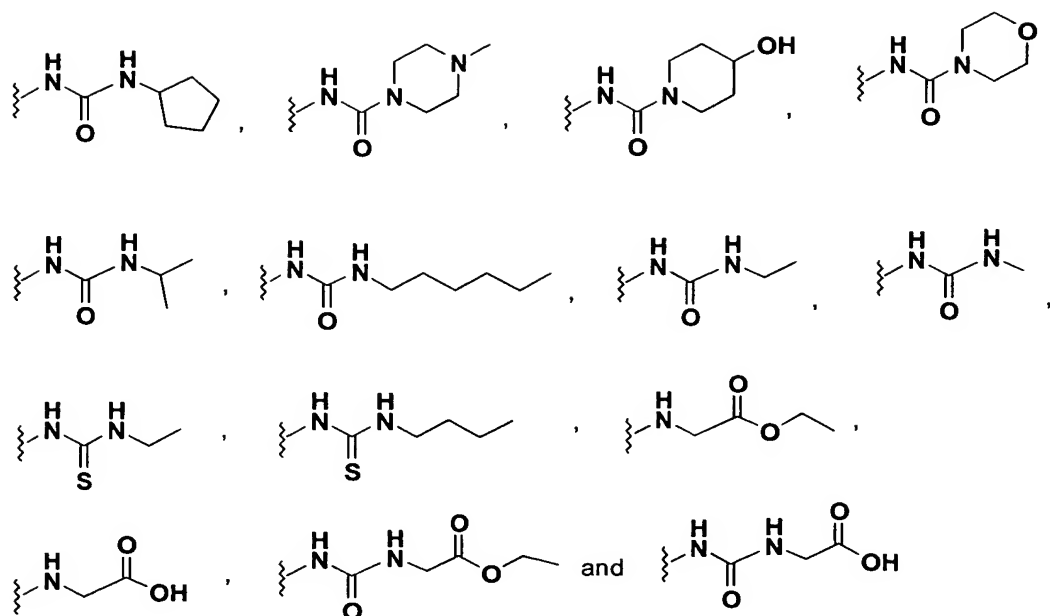


16. The compound according to claim 15, wherein Ar is

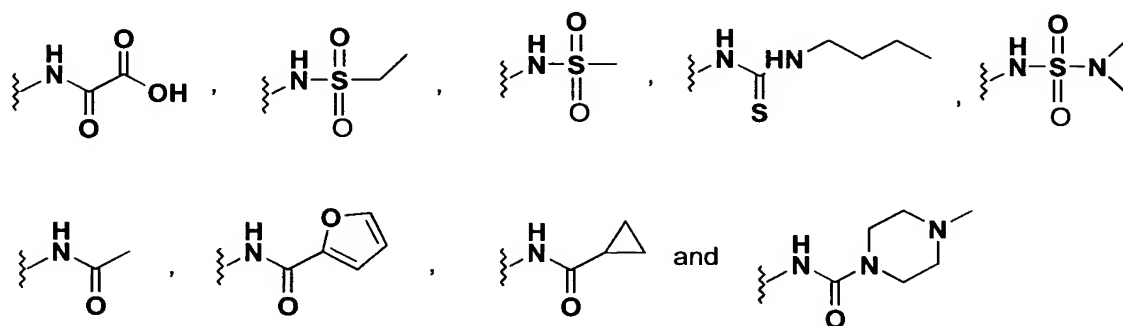


17. The compound according to claim 1 wherein  $m=0$ ,  $n=1$  and  $R^4$  is selected from the group consisting of





18. The compound according to claim 17 wherein  $m=0$ ,  $n=1$  and  $R^4$  is selected from the group consisting of



19. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

20. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(N,N-dimethylsulphonamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

21. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(ethanesulphonamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

22. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-acetamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
23. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(3-chloropropylcarboxamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
24. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-ethylcarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
25. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-t-butylcarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
26. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-ethoxycarbonylcarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
27. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-hydroxycarbonylcarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
28. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-hydroxycarbonylcarboxamido-dibenzo[b,d]furan-1-carboxamide sodium salt
29. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(fur-2-yl-carboxamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
30. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(cyclopropylcarbonylamino)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
31. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(N,N-dicyclopropylcarbonylamino)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
32. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-trifluoroacetamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

33. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-ethoxycarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
34. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-isobutyloxycarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
35. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-phenoxy-carboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
36. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-cyclopropylmethoxycarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
37. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-trifluoromethylmethoxycarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
38. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-N,N-diethylaminocarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
39. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-cyclopentylaminocarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
40. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(N-methylpiperazin-4-yl carboxamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
41. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(N-methylpiperazin-4-yl carboxamido)-dibenzo[b,d]furan-1-carboxamide hydrochloride.
42. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(4-hydroxypiperidin-1-yl carboxamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
43. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(morphol-4-yl carboxamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.



44. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-isopropylamino carboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
45. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-n-hexylamino carboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
46. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-ethylamino carboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
47. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-methylamino carboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
48. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
49. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide sodium salt.
50. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-ethanesulfonamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
51. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-N,N-dimethylaminosulfonamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
52. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-acetamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
53. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-(1-chloropropylcarboxamido)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.
54. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-cyclopropylcarboxamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.



67. A compound according to claim 1, N-(pyrid-4-yl)-4-methoxy-8-acetamido-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

68. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(2-ethoxy-2-oxo-ethylaminocarbonylamino)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

69. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(2-hydroxy-2-oxo-ethylaminocarbonylamino)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

70. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(2-ethoxy-2-oxo-ethylamino)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

71. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-(2-hydroxy-2-oxo-ethylamino)-dibenzo[b,d]furan-1-carboxamide or a pharmaceutically acceptable salt thereof.

72. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-1-methoxy-9-methyl-6-acetamido-9H-4-carbazolecarboxamide or a pharmaceutically acceptable salt thereof.

73. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-1-methoxy-9-methyl-6-methanesulphonamido-9H-4-carbazolecarboxamide or a pharmaceutically acceptable salt thereof.

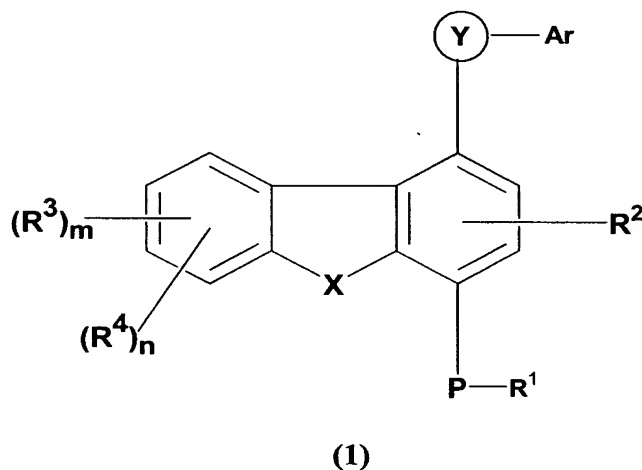
74. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-1-methoxy-9-methyl-6-ethanesulphonamido-9H-4-carbazolecarboxamide or a pharmaceutically acceptable salt thereof.

75. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-1-methoxy-9-methyl-6-propionamido-9H-4-carbazolecarboxamide or a pharmaceutically acceptable salt thereof.

76. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-methanesulfonylamido-dibenzo[b,d]furan-1-carboxamide disodium salt

77. A compound according to claim 1, N-(3,5-dichloropyrid-4-yl)-1-methoxy-6-acetamido-dibenzo[b,d]thiophene-4-carboxamide or a pharmaceutically acceptable salt thereof.

78. A N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-acetamido-dibenzo[b,d]furan-1-carboxamide sodium salt.
79. A N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-fur-2-ylcarboxamido-dibenzo[b,d]furan-1-carboxamide sodium salt.
80. A N-(3,5-dichloropyrid-4-yl)-4-difluoromethoxy-8-methane sulfonamido-dibenzo [d,b] furan-1-carboxamide-N-oxide or a pharmaceutically acceptable salt thereof.
81. A method for the preparation of compounds of general Formula (1)



wherein:

$R^1$ ,  $R^2$  and  $R^3$  may be same or different and are independently selected for each occurrence from the groups consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic group, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$  or when two  $R^3$  substituents ortho to each other, may be joined to form a saturated or unsaturated 3-7 membered ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

wherein  $R^4$  is  $NR^5R^6$ ; wherein  $R^5$  and  $R^6$  may be same or different and are independently selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, halogen,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-C(=NR^a)-R^a$ ,  $-C(=NR^a)-NR^aR^a$ ,  $-C(=S)-NR^aR^a$ ,  $-C(=S)-R^a$ ,  $-N=C(R^aR^a)$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$ , protecting groups or  $R^5$  and  $R^6$  to each other may be joined to a form a saturated or unsaturated 3-7 membered cyclic ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

Ar is selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heterocyclic ring or substituted or unsubstituted heteroaryl ring;

X is selected from the group consisting of O,  $S(O)_q$  and  $NR^a$ ;

Y is selected from the group consisting of  $-C(O)NR^7$ ,  $-NR^7S(O)_q$ ,  $-S(O)_qNR^7$  and  $-NR^7C(O)$ ;

$R^7$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, hydroxyl,  $-OR^a$ , substituted or unsubstituted aryl, and substituted or unsubstituted heterocyclic ring;

wherein P selected from the group consisting of O and S;

wherein m represents 0 – 3;

wherein n represents 1 – 4;

wherein q represents 0, 1 or 2;

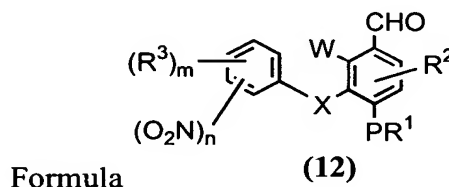
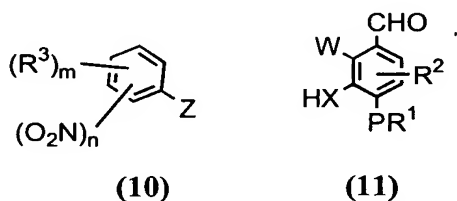
with the proviso that  $R^4$  is not  $NH_2$

wherein  $R^a$  is hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl,

substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$  or  $-SR^a$ , and their analogs, their tautomers, their regioisomers, their stereoisomers, their enantiomers, their diastereomers, their polymorphs, their pharmaceutically acceptable salts, their N-oxides, their pharmaceutically acceptable solvates and their pharmaceutical compositions containing them or a pharmaceutical acceptable salts thereof comprising the steps of:

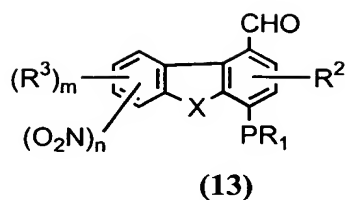
a) reacting the compound of general Formula (10) with a compound of the general Formula

(11) in the presence of a base

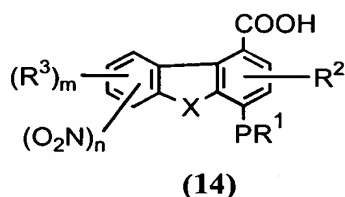


wherein Z is a halogen, wherein W is a halogen, to obtain the intermediate of the general Formula (12).

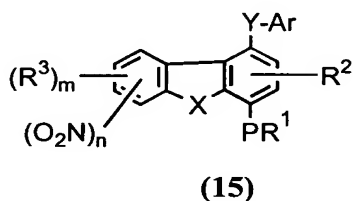
b) cyclizing the intermediate of the general Formula (12) using a reagent chosen from the group consisting of palladium acetate in DMF or glacial acetic acid, nickel catalyst in pyridine or DMF, and tetrakis(triphenylphosphine)palladium in DMF to the tricyclic intermediate of the general Formula (13).



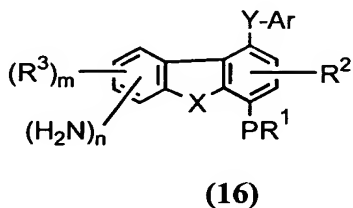
c) oxidizing the tricyclic intermediate of the general Formula (13) to the intermediate of the general Formula (14) using sodium chlorite or potassium permanganate



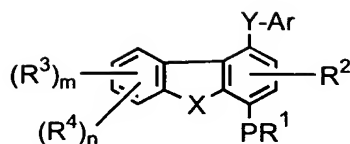
d) converting the intermediate of the general Formula (14) to the intermediate of the general Formula (15), wherein Y is  $-\text{CONR}^7$ , by reacting an activated carboxylic acid chosen from the group consisting of acid halide, mixed anhydride, and active ester intermediate of the general Formula (14) with the optionally substituted aryl or heteroaryl amines ( $\text{ArNHR}^7$ ) under basic conditions;



e) reducing the intermediate of the general Formula (15) to the intermediate of the general Formula (16).



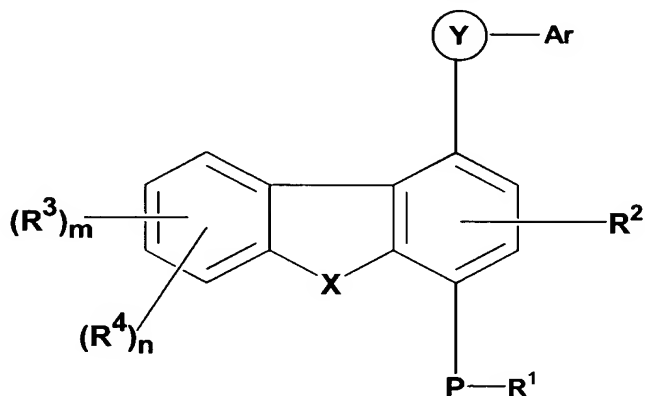
f) converting the intermediate of the general Formula (16) to the desired compound of the general Formula (1) wherein Y is  $-\text{CONR}^7$ ,  $\text{R}^4$  is  $-\text{NR}^5\text{R}^6$ .



(1)

g) and optionally converting the compounds of the general Formula (I) into the corresponding salts and /or the N-Oxides.

82. A method for the preparation of compounds of general Formula (1)



(1)

wherein:

$R^1$ ,  $R^2$  and  $R^3$  may be same or different and are independently selected for each occurrence from the groups consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic group, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$  or when two  $R^3$  substituents ortho to each other, may be joined to form a saturated or unsaturated 3-7 membered ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

wherein  $R^4$  is  $-NR^5R^6$ ; wherein  $R^5$  and  $R^6$  may be same or different and are independently selected from the groups consisting of hydrogen, substituted or



unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylakyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, halogen,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-C(=NR^a)-R^a$ ,  $-C(=NR^a)-NR^aR^a$ ,  $-C(=S)-NR^aR^a$ ,  $-C(=S)-R^a$ ,  $-N=C(R^aR^a)$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$ , protecting groups or  $R^5$  and  $R^6$  to each other may be joined to form a saturated or unsaturated 3-7 membered cyclic ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

Ar is selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted unsubstituted heterocyclic ring and substituted or unsubstituted heteroaryl ring;

X is selected from the group consisting of O,  $S(O)_q$  and  $NR^a$ ;

Y is selected from the group consisting of  $-C(O)NR^7$ ,  $-NR^7S(O)_q$ ,  $-S(O)_qNR^7$  or  $-NR^7C(O)$ ;

$R^7$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, hydroxyl,  $-OR^a$ , substituted or unsubstituted aryl, and substituted or unsubstituted heterocyclic ring;

wherein P is selected from the group consisting of O, and S;

wherein m represents 0 – 3;

wherein n represents 1 – 4;

wherein q represents 0, 1 or 2;

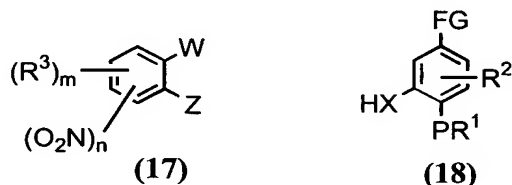
with the proviso that  $R^4$  is not  $NH_2$

wherein  $R^a$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylakyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano,

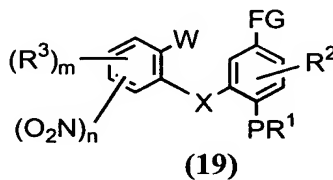
formyl, acetyl, halogen, protecting groups,  $-\text{C}(\text{O})-\text{R}^a$ ,  $-\text{C}(\text{O})\text{O}-\text{R}^a$ ,  $-\text{C}(\text{O})\text{NR}^a\text{R}^a$ ,  $-\text{S}(\text{O})_q-\text{R}^a$ ,  $-\text{S}(\text{O})_q-\text{NR}^a\text{R}^a$ ,  $-\text{NR}^a\text{R}^a$ ,  $-\text{OR}^a$  or  $-\text{SR}^a$ ;

and their analogs, their tautomers, their regioisomers, their stereoisomers, their enantiomers, their diastereomers, their polymorphs, their pharmaceutically acceptable salts, their N-oxides, their pharmaceutically acceptable solvates and their pharmaceutical compositions containing them or a pharmaceutical acceptable salts thereof comprising the steps of:

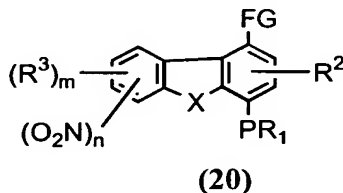
a) reacting the compound of the general Formula (17) with a compound of the general Formula (18) in the presence of a base



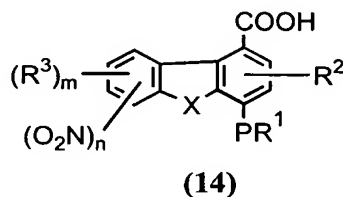
wherein Z is a halogen, wherein W is a halogen, wherein FG is chosen from the group consisting of CHO, COCH<sub>3</sub>, CN, COOR<sup>a</sup>, under basic conditions to obtain the intermediate of the general Formula (19).



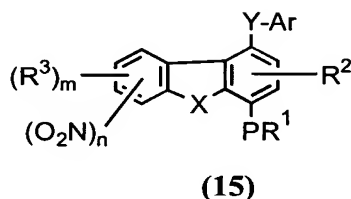
b) cyclizing the intermediate of the general Formula (19) by using a reagent chosen from the group consisting of (palladium acetate in DMF or glacial acetic acid, nickel catalyst in pyridine or DMF, and tetrakis(triphenylphosphine)palladium in DMF, to the tricyclic intermediate of the general Formula (20).



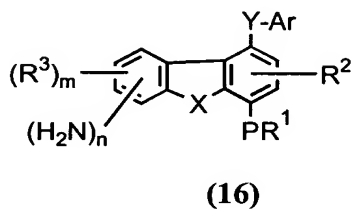
c) oxidizing the tricyclic intermediate of the general Formula (20) if FG is CHO or COCH<sub>3</sub>, or hydrolysing if FG is CN or COOR<sup>a</sup>, to the intermediate of the general Formula (14).



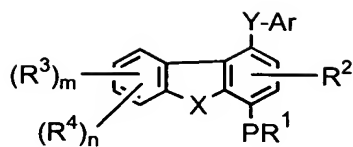
d) converting the intermediate of the general Formula (14) to the intermediate of the general Formula (15), wherein Y is -CONR<sup>7</sup>, by reacting an activated carboxylic acid chosen from the group consisting of acid halide, mixed anhydride, and active ester intermediate of the general Formula (14) with the optionally substituted aryl or heteroaryl amines (ArNHR<sup>7</sup>) under basic conditions;



e) reducing the intermediate of the general Formula (15) to the intermediate of the general Formula (16).



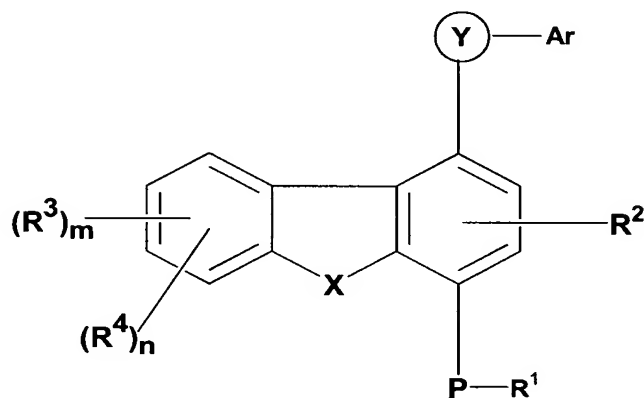
f) converting the intermediate of the general Formula (16) to the desired compound of the general Formula (1) wherein Y is -CONR<sup>7</sup>, R<sup>4</sup> is -NR<sup>5</sup>R<sup>6</sup>;



(1)

g) and optionally converting the compounds of the general Formula (1) into the corresponding salts and /or the N-Oxides.

83. A method for the preparation of compounds of general Formula (1)



(1)

wherein:

$R^1$ ,  $R^2$  and  $R^3$  may be same or different and are independently selected for each occurrence from the group consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic group, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$  or when two  $R^3$  substituents ortho to each other, may be joined to form a saturated or unsaturated 3-7 membered cyclic ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

wherein  $R^4$  is selected from the group consisting of  $-NR^5R^6$ ; wherein  $R^5$  and  $R^6$  may be same or different and are independently selected from the groups consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro,  $-OH$ , cyano, halogen,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-C(=NR^a)-R^a$ ,  $-C(=NR^a)-NR^aR^a$ ,  $-C(=S)-NR^aR^a$ ,  $-C(=S)-R^a$ ,  $-N=C(R^aR^a)$ ,  $-NR^aR^a$ ,  $-OR^a$ ,  $-SR^a$ , protecting groups or  $R^5$  and  $R^6$  to each other may be joined to form a saturated or unsaturated 3-7 membered cyclic ring, which may optionally include up to two heteroatoms which may be same or different selected from O,  $NR^a$  or S;

Ar is selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heterocyclic ring and substituted or unsubstituted heteroaryl ring;

X is selected from the group consisting of O,  $S(O)_q$  or  $NR^a$ ;

Y is selected from the group consisting of  $-C(O)NR^7$ ,  $-NR^7S(O)_q$ ,  $-S(O)_qNR^7$  or  $-NR^7C(O)$ ;

$R^7$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, hydroxyl,  $-OR^a$ , substituted or unsubstituted aryl, and substituted or unsubstituted heterocyclic ring;

wherein P is chosen from the group consisting of O and S;

wherein m represents 0 – 3;

wherein n represents 1 – 4;

wherein q represents 0, 1 or 2;

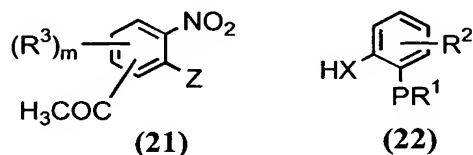
with the proviso that  $R^4$  is not  $NH_2$

wherein  $R^a$  is selected from the group consisting of hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted

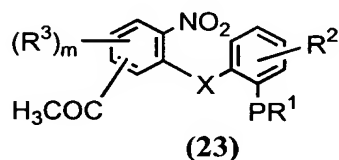
cycloalkylalkyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted aryl, substituted or unsubstituted arylalkyl, substituted or unsubstituted heteroaryl, substituted or unsubstituted heterocyclic ring, substituted or unsubstituted heterocyclalkyl, substituted or unsubstituted heteroarylalkyl, nitro, -OH, cyano, formyl, acetyl, halogen, protecting groups,  $-C(O)-R^a$ ,  $-C(O)O-R^a$ ,  $-C(O)NR^aR^a$ ,  $-S(O)_q-R^a$ ,  $-S(O)_q-NR^aR^a$ ,  $-NR^aR^a$ ,  $-OR^a$  and  $-SR^a$ ;

and their analogs, their tautomers, their regioisomers, their stereoisomers, their enantiomers, their diastereomers, their polymorphs, their pharmaceutically acceptable salts, their N-oxides, their pharmaceutically acceptable solvates and their pharmaceutical compositions containing them or a pharmaceutical acceptable salts thereof comprising the steps of:

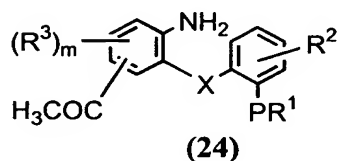
a) reacting the compound of the general Formula (21) with a compound the general Formula (22) in the presence of a base



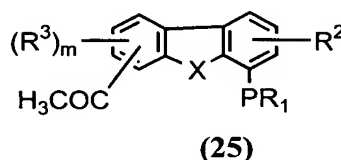
wherein Z is a halogen, to obtain the intermediate of the general Formula (23).



b) reducing the intermediate of the general Formula (23) the intermediate of the general Formula (24)



c) cyclizing the intermediate of general Formula (24) by diazotization followed by coupling using a reagent chosen from the group consisting of cuprous oxide in 0.1N sulfuric acid, and copper in DMSO to a tricyclic intermediate of the general Formula (25)



d) converting the acetyl group of the tricyclic intermediate of the general Formula (25) to the acetamido group.

84. A method of treating an inflammatory disorder comprising administering to a subject in need thereof a therapeutically effective amount of a compound according to claim 1.

85. The method according to claim 84, wherein said inflammatory disorders are chosen from the group consisting of asthma, bronchial asthma chronic obstructive pulmonary disease, allergic rhinitis, eosinophilic granuloma, nephritis, rheumatoid arthritis, cystic fibrosis, chronic bronchitis, multiple sclerosis, Crohns disease, psoriasis, urticaria, adult vernal conjunctivitis, respiratory distress syndrome, rheumatoid spondylitis, osteoarthritis, gouty arthritis, uteritis, allergic conjunctivitis, inflammatory bowel conditions, ulcerative colitis, eczema, atopic dermatitis and chronic inflammation.

86. The method according to claim 84, wherein said inflammatory disorder is chosen from the group consisting of chronic obstructive pulmonary disease and asthma.

87. The method according to claim 85, wherein said inflammatory disorders are selected from the group consisting of inflammatory conditions or immune disorders of the lungs, joints, eyes, bowels, skin and heart.

88. The method according to claim 85, wherein said inflammatory disorder is chosen from the group consisting of bronchial asthma, nephritis, and allergic rhinitis.

89. A method of treating diseases of the central nervous system comprising administering to a subject in need thereof a therapeutically effective amount of a compound according to claim 1.

90. The method according to claim 89, wherein said diseases of the central nervous system are chosen from the group consisting of depression, amnesia, dementia, Alzheimers disease, cardiac failure, shock and cerebrovascular disease

91. A method of treating insulin resistant diabetes comprising administering to a subject in need thereof a therapeutically effective amount of a compound according to claim 1.